

5
614
H2b
NO. 23

LABORATORY BULLETIN

DEC 11 1969

MONTANA STATE DEPARTMENT OF HEALTH
HELENA, MONTANA

STATE DOCUMENTS

Montana State Library



3 0864 1006 5371 9

No. 23 - December 10, 1969

TUBERCULOSIS - A REMINDER

In Alabama, in March 1969, a previously undetected case of far-advanced bilateral pulmonary tuberculosis in a 17-year-old high school student resulted in 290 contacts with sufficient evidence of infection to be placed on a year of isoniazid therapy. Seven of the contact cases were hospitalized, along with the original case, at the state tuberculosis hospital. Could this happen in your school district? This is a reminder that the state laboratory provides complete facilities for mycobacteriology. They include isolation of acid-fast organisms, identification of mycobacteria and tests for antibiotic sensitivity.

CULTURE DIAGNOSIS OF GONORRHEA IN WOMEN

An important element in control of gonorrhea is detection of the gonococcus in female carriers, many of whom are asymptomatic. This in turn depends upon satisfactory cultural methods. A recent discussion of this is: Schmale, J.D.; Martin, J.E.; and Domesick, G. JAMA 210: 312-314, Oct. 13, 1969. Their estimate is 1,500,000 cases of gonorrhea in the U.S. in 1968. The last annual figure for Montana is 547 reported cases. (An estimate of 1,000 to 1,500 cases per year in Montana would be a reasonable one.)

Because of results reported in this paper, we have modified our recommendations for submission of materials to the laboratory. Two cultures should be submitted on Thayer-Martin medium. One should be a cervical swab and the other a rectal swab. The swabs should be rolled on the surface of the medium as soon as they are collected and the cultures incubated with the caps slightly loose and at 37° C in a candle jar overnight to initiate growth of the organism. When the jar is opened the caps should be immediately tightened to trap the carbon dioxide atmosphere in the tube. Ship the culture to the state laboratory as soon as possible. During the period we are initiating this procedure, we would appreciate receiving duplicate specimens in Stuart's Transport Medium. These should be submitted as soon as the swabs are taken. Each culture should be accompanied by an unstained slide because slides made from shipped swabs are usually unsatisfactory.

Thayer-Martin medium cannot be stored for more than a month and it is expensive. Therefore, if you anticipate seeing patients who should be cultured for GC, we will send some on request. If the unexpected occurs, call the laboratory (449-2643 or 2642) and some will be sent immediately. The VD representative in your area can also forward requests to us.

Missoula
Billings
Great Falls

Robert Baker
Ron Hauge
Peter Frazier

Tel. 549-2374
252-5181, ext. 234
761-6700, ext. 245

Ideally, cultures for Neisseria should be processed in a local laboratory because these organisms are "poor shippers". For example, the Infectious Disease Center in Missoula seems to have the best record of culturing gonococci. This isn't due to lack of competence on our part--we do have positives so we know we can grow the organism--but rather to unsatisfactory specimens either due to faulty collection or the hazards of shipping.

OVER

Even with the use of "ideal" procedures, a negative culture does not rule out the diagnosis of gonorrhea. In the reference cited above, from six to eight per cent of infected females were culturally negative on a single visit even when swabs were taken from four sites. (Added note: It is a fact that strains of Neisseria gonorrhea being imported from Viet Nam are creating more problems due to antibiotic resistance than have our "native" strains.)

MENINGOCOCCAL MENINGITIS - A REMINDER

While we are dealing with Neisseria we should consider the meningococcus because its season (late winter and early spring) is on the way. In 1969, nine cases of meningococcal infections have been reported in Montana. Two of these were fatal. It is important to culture the organism from cases of purulent meningitis to determine their antibiotic sensitivities and their serologic grouping. This is emphasized by a quotation from a recent National Communicable Disease Center communication: "Sulfadiazine resistance of strains has continued to increase. This overall trend mainly reflects the increasing percentage of serogroup C isolates that were submitted to NCDC from cases of meningococcal disease. The frequency of sulfonamide resistance in serogroup C, in contrast to other serogroups, has increased significantly." (All isolates received in our laboratory in 1969 have been serogroup B, sulfadiazine sensitive.)

PROFICIENCY TESTING IN MICROBIOLOGY

From data in our files and that published by the Regional Medical Program, we have compiled a list of laboratories doing microbiology in Montana. Early in 1970 these laboratories will receive two unknown cultures to be identified. This will be the beginning of more extensive proficiency testing. (Proficiency testing by us has previously been limited to the VDRL serological test for syphilis.) These are some of the procedures which should be included when a laboratory offers microbiological services:

1. Primary stool culture for isolation of Salmonella-Shigella spp.
2. Throat culture - especially for beta-hemolytic streptococci.
3. Blood culture and urine culture.
4. Cultures from various lesions and body cavities. These should include anaerobic culturing.
5. Cultures for microbiological control of the hospital environment.
6. Identification of the more common species found in such cultures (e.g. beta-hemolytic streptococci, Hemophilis spp., Staphylococcus aureus, Diplococcus pneumoniae, Salmonella - Shigella spp., Proteus spp., E. Coli, Clostridium perfringens).
7. Recognition of Neisseria gonorrhea and Neisseria meningitidis in Gram-stained smears and either culturing for these organisms or sending material suitable for culture to a reference laboratory.
8. Testing of ~~isolates~~ for sensitivity to antibiotics.

SPECIAL TO THE LABORATORIANS RECEIVING THIS BULLETIN

Seasons Greetings! We earnestly hope you will assume the responsibility for communicating pertinent material contained herein to the physicians whom you serve.